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Date of Deposit March 23, 2000.

REQUEST FOR FILING A CONTINUING PATENT APPLICATION UNDER 37 CFR § 1.53(b)(1)

Case No.	ANTICIPATED CLASSIFICATION OF THIS APPLICATION		PRIOR APPLICATION EXAMINER	ART UNIT
	CLASS	SUBCLASS		
4645/54			Lien Tran	1302

Address to:
Assistant Commissioner for Patents
Washington, DC 20231

This is a request for filing a ☐ continuation ☒ divisional application under 37 CFR § 1.53(b)(1), of pending prior application number 08/968,900, filed on March 8, 1999, entitled A METHOD OF MAKING LAMINATED PIZZA CRUST, WHICH IS IN TURN A CPA OF 08/968,900, FILED JUNE 19, 1998, ENTITLED LAMINATED PIZZA CRUST, WHICH IS IN TURN A CONTINUATION OF 08/496,894, FILED JUNE 30, 1995, ENTITLED LAMINATED PIZZA CRUST.

1. ☒ Copy Of the Prior application, including 2 sheets of drawings, 18 pages of Application (including title page), and the following Appendices N/A.

2. ☒ Copy of the Declaration filed in the Prior application.

3. ☒ PTO Form 1449 and Information Disclosure Statement.

CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
	TOTAL CLAIMS (37 CFR 1.16(c))	- 20 =		x $ 18 =	$
	INDEPENDENT CLAIMS (37 CFR 1.16(b))	- 3 =		x $ 78 =	$
	MULTIPLE DEPENDENT CLAIMS (if applicable) (37 CFR 1.16(d))			+ $260 =	$
				BASIC FEE (37 CFR 1.16(a))	$ 690
				Total of above Calculations =	$
	Reduction by 50% for filing by small entity (Note 37 CFR 1.9, 1.27, 1.28)				$
				TOTAL =	$

4. ☐ A verified statement to establish small entity status under 37 CFR 1.9 and 1.27

   ☐ is enclosed.

   ☐ was filed in prior application number _____ and such status is still proper and desired (37 CFR 1.28(a)).

5. ☒ The Assistant Commissioner is hereby authorized to charge any fees which may be required under 37 CFR 1.16 and 1.17, or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.

6. ☒ Enclosed is a check for $ 690.00 to cover the filing fees.

7. ☒ Cancel in this application original claims 1-7 of the prior application and otherwise enter the attached preliminary amendment before calculating the filing fee. (At least one original independent claim must be retained for filing purposes).

8. ☒ The inventor(s) of the invention being claimed in this application is(are): Ronald O. Bubar.

9. ☐ This application is being filed by less than all the inventors named in the prior application. In accordance with 37 CFR 1.63(d)(2), the Assistant Commissioner is requested to delete the name(s) of the following person or persons who are not inventors of the invention being claimed in this application: _____.

10. ☒ Amend the specification by inserting before the first line the sentence: "This application is a ☐ continuation ☒ division of application number 08/968,900, filed March 8, 1999, which is turn a CPA of application number 08/968,900, filed June 19, 1998, which is in turn a continuation of application number 08/496,894, filed June 30, 1995."

11. ☒ New formal drawings are enclosed.

12. ☐ Priority of foreign application number _____, filed on _____ in _____ is claimed under 35 U.S.C. 119.

    ☐ The certified copy has been filed in prior application number _____, filed

13. ☒ A preliminary amendment is enclosed.

14. ☒ The prior application is assigned of record to Jeno F. Paulucci.

15. ☐ Also enclosed: _____.

16. ☒ The power of attorney in the prior application is to:Michael P. Chu and other attorneys at the firm of BRINKS HOFER GILSON & LIONE.

    a. ☒ The power appears in the original papers in the prior application.

    b. ☐ Since the power does not appear in the original papers, a copy of the power in the prior application is enclosed.

    c. ☒ Address all future correspondence to: (may only be completed by applicant, or attorney or agent of record.)

3/23/2000
Date

Michael P. Chu
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610
(312)321-4200

Signature
Name: Michael P. Chu
Reg. No. 37,112

☐ Inventor(s)
☐ Assignee of complete interest
☒ Attorney or agent of record
☐ Filed under 37 CFR 1.34(a)
Registration Number if acting under 37 CFR 1.34(a): _____.

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Date of Deposit: March 23, 2000

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Brenda S. Skinner
(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

Patent
Case No. 4645/54

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Ronald O. Bubar	)	
	)	Examiner: Lien Tran
Serial No.:	)	
	)	Group Art Unit: 1302
Filed:	)	
	)	
For: LAMINATED PIZZA CRUST	)	

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please delete pending original claims 1-7 and enter the following new claims:

9. A system for making a plurality of pizza crusts, said system comprising:

a mixer for combining ingredients into a dough;

a roller for rolling said dough into a sheet;

a folder for incorporating a layer of margarine into said sheet;

a first stretching means for rolling said sheet and said margarine together;

a first piling means for layering said sheet with said margarine to create a first layered sheet;

a second stretching means for rolling said first layered sheet;

a second piling means for layering said first layered sheet to create a second layered sheet; and

a third stretching means for rolling said second layered sheet;

said system cooperating to manipulate said dough into a plurality of pizza crusts having a plurality of margarine layers distributed between layers of dough.

10. The system of claim 9 wherein said stretching means further comprises a series of rollers that are mounted for rotation over a conveyor.

11. The system of claim 10 wherein said dough further comprises approximately 60% flour, 1.25% margarine and 32% water.

12. A laminated crust comprising:

a multi-layered lamination incorporating a plurality of margarine layers distributed between layers of a dough product, said lamination being formed by proofing the dough product, forming the dough product into a sheet, extruding a margarine layer thereon, and manipulating the sheet and margarine to produce a folded dough having a plurality of margarine layers distributed between layers of the dough product.

REMARKS

The present application is a divisional of pending prior application Serial No. 08/968,900, filed on March 8, 1999, entitled A METHOD OF MAKING LAMINATED PIZZA CRUST, which is in turn a CPA application of Serial No. 08/968,900, filed June 19, 1998, entitled A METHOD OF MAKING LAMINATED PIZZA CRUST, which is in turn a continuation application of prior application Serial No. 08/496,894, filed on June 30, 1995 entitled LAMINATED PIZZA CRUST. In the original '894 application, the Examiner requested restriction of the invention. On October 1, 1996, Applicant provisionally elected to proceed with prosecution of the process claims of original Group I. This provisional election has carried through, and amended process-related claims have presently been allowed in the pending 08/968,900 patent application.

The present Preliminary Amendment includes an original claim and new claims directed to a product and system of the present invention as disclosed in the original application. No new matter has been added.

It is submitted that the present claims are in condition for allowance, and such allowance is earnestly solicited. Should the Examiner have any questions regarding the above submission, she is asked to please contact the undersigned at the number listed below.

Respectfully submitted,

Michael P. Chu, Reg. No. 37,112
Attorney For Applicant

BRINKS HOFER GILSON & LIONE
P.O. Box 10395
Chicago, IL 60610
312/321-4200

Dated: March 23, 2000

F:common\MPC\4645-39-1-IDS

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_____
(Typed or printed name of person mailing paper or fee)

_____
(Signature of person mailing paper or fee)

Case No. 4645/31

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UNITED STATES LETTERS PATENT

INVENTOR: Ronald O. Bubar

TITLE: LAMINATED PIZZA CRUST

ATTORNEYS:

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BACKGROUND OF THE INVENTION

This invention relates to baked products and methods for making them. In particular, the invention relates to a method of making a laminated dough pizza crust. The laminated dough pizza crust of the present invention demonstrates improved palatability and stability when heated in a microwave oven. Microwave ovens have provided a convenient means for heating a variety of frozen food products. Within this category of frozen food products, frozen store-bought pizzas continue to be a popular microwave-heatable item for consumers. These frozen pizzas offer the convenience of being heatable in either a conventional oven or a microwave oven. The crusts for these pizzas have traditionally been made from a simple yeast-based dough, similar to that used for making other bread products.

Frozen pizzas of the thin-crusted variety tend to be more generally favored if the crust has a crispy quality when cooked. These characteristics are easily accomplished in a conventional oven due to such an oven's direct surface heating and drying effects. In microwave ovens, however, excess moisture within the frozen crust often causes it to become soft and soggy. After prolonged exposure, the crust becomes tough and unpalatable, with the crumb of the crust becoming rubbery and gummy. Reducing the amount of time the crust is exposed to microwave energy is usually not a possibility, because the pizza toppings must be heated to a proper serving temperature. By the time the toppings are adequately heated, the crust can already be unpalatable.

Various attempts have been made to overcome the problems associated with exposure of pizza crusts to microwave energy. These improvements, however, have been only minimally successful. For example, dough formulas have been manipulated to make them

homogeneously higher in shortening content and eggs. The inclusion of these additional ingredients slows the crust's absorption of microwave energy. These types of crusts do not have a pleasant taste or texture.

Other cures such as pre-cooking or pre-toasting have been attempted to reduce the amount of moisture in the bread product and thus alleviate the problems caused when the product is exposed to microwave energy. However, the pre-cooking can degrade the taste and instead create a dry, unappealing product. In the case of pizzas, the reduction of moisture in the pre-cooked crust becomes somewhat futile, because the low moisture is counteracted by the addition of the pizza toppings, such as tomato sauce, cheese, meats, and vegetables, all of which re-contribute moisture to the crust. Moreover, the pre-toasting adds an additional, expensive step to the entire pizza-making process.

Other methods for incorporating fat into pizza crusts have been developed to improve the overall texture of the crust. One method includes incorporating flakes of shortening or fat into a homogenous dough. This crust is not specifically formulated for improved microwavability, however, and such a crust does not adequately possess the flaky texture of traditionally cooked thin-crusted pizzas.

Finally, some dough products for commercial foods such as pies and pastries are made using a laminated dough. A laminated dough typically comprises thin layers of dough separated by either a layer of fat or a layer of dough of a differing type. These laminated doughs have previously been used for puffed, highly risen pastries, which have little value for thin pizza crusts. Pizza crusts have also been made from a pressed laminated dough, although the advantages of using a multiple-layer dough tend to be lost during the steps of pressing or stamping the dough into discs.

The pressing or stamping homogenizes much of the layered structure.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an improved frozen pizza crust that exhibits improved palatability and crispness when exposed to microwave energy.

It is another object of the present invention to provide a formulation for an improved frozen pizza crust that exhibits improved palatability and crispness when exposed to microwave energy.

It is still another object of the present invention to provide a system and method for making an improved frozen pizza crust that exhibits improved palatability and crispness when exposed to microwave energy.

In one aspect of the present invention, a laminated pizza crust is produced by resting a formulated dough mixture, cutting the dough, rolling the dough into a sheet, extruding high-melt margarine on to the sheet and folding the dough over the margarine to form a fatted dough, stretching the fatted dough, piling the fatted dough onto itself to create several layers, stretching the dough a second time, piling and rolling the dough again, stretching the dough a final time to a predetermined thickness, puncturing (docking) the dough sheet, cutting the dough sheet into pre-determined pizza shapes, and finally baking the shapes. The baked, laminated crusts can be topped with pizza ingredients and frozen. Upon reheating by the consumer in either the microwave or a conventional oven, the crust exhibits an improved texture, flakiness, and flavor.

In another aspect of the present invention, an apparatus for making pizza crusts includes a mixer for combining ingredients into a dough, a roller for

rolling the dough into a sheet, a folder for incorporating a layer of margarine into the sheet, a first stretcher for rolling the sheet, a first piler for layering the sheet to create a first layered sheet, a second stretcher for rolling said first layered sheet, a second piler for layering said first layered sheet to create a second layered sheet, a third stretcher for rolling the second layered sheet, cutters for dividing the second layered sheet into pieces, a docker for puncturing holes in the pieces, and at least one oven for baking the pieces.

These and other features and advantages of the invention will become apparent upon the review of the following detailed description of the presently preferred embodiments of the invention, taken in conjunction with the appended figures.

DESCRIPTION OF THE DRAWINGS

The invention will be explained with reference to the drawings, in which:

Figure 1 shows a high-level flowchart of the process for making the pizza crust of the present invention.

Figure 2 shows a high-level flowchart of the process for producing the dough mixture used in the present invention.

Figure 3 shows a detailed flowchart of the sheeting and laminating process used in the present invention.

DETAILED DESCRIPTION OF THE INVENTION AND THE PRESENTLY PREFERRED EMBODIMENT

In accordance with the present invention, the method for making the laminated pizza crust is shown generally in Figure 1. After ingredients for the dough are mixed (10-11), the dough is allowed to rest a period of time (12). After this resting period, a sheeting and laminating process (13) is performed on

the rested dough to produce a layered sheet of dough and fat. When the laminated dough is of the proper thickness and comprises the desired number of layers, the dough is "docked" or punctured with holes to prevent ballooning of the dough, and cut into pizza-sized portions (14). Finally, the portions are baked in ovens (15).

The following example shows the ingredients used in the manufacture of a pizza crust in accordance with the present invention. The crust mixture which is used in the preparation of the laminated crust includes approximately 60% by weight of a flour having a protein content of approximately 11%. 1.25% by weight of active dry yeast is also added, along with 1.25% salt, 1.25% sugar, 1.25% uncolored, solid margarine, and 32% water at a temperature between 50 and 60 degrees F (all percentages are by weight of total dough). A dough conditioner is added in a quantity of about .3% by weight. The conventional dough conditioner, preferably of the type manufactured by Microgold, stabilizes the mixture. A table summary of these ingredients in an example batch (quantitized by weight of ingredients) is listed below.

INGREDIENTS (example)

Ingredient	Pounds
Flour - 11% Protein	100
Yeast - Dry Instant Active	2
Salt	2
Sugar	2
Margarine - Uncolored, Solid	2
Water	52
Microgold Dough Conditioner	5
Hi-melt Margarine Roll-In %	10%

As shown in the flow diagram of Figure 2, the ingredients are first weighed (boxes 20-24 in the flow diagram), and the water, salt, sugar, yeast, and dough conditioner are mixed into a slurry (25). The water used at step 20 is filtered water brought to the specified temperature. The slurry solution is then mixed and pumped to a use tank. The measured flour, slurry, and margarine are then loaded (26-27) and mixed together (28). The mixing occurs at high speed for 2 to 3 minutes until a preferred target temperature of approximately 80-89 degrees F is reached. After mixing, the dough is discharged onto an incline conveyor belt and conveyed slowly for 45 minutes to 1 hour (29 in Figure 2, 12 in Figure 1). This "resting" or "airing" stage allows the yeast in the dough to activate and cause the dough to rise.

As shown in Figure 1, following the resting period 12 the sheeting and laminating process 13 is performed on the dough. This process is illustrated by the flow diagram of Figure 3. As shown in this figure, various

cutting, rolling, and stretching operations are performed.

At box 40 in the flow diagram, a dough chunker divides the dough into approximately 60 pound chunks in order to properly load a dough feeder. At 41, the dough feeder receives the chunks of dough dumped into a hopper. The conventional feeder uses a belt and cutting blade to deposit overlapping dough strips on a moving conveyor. The line of strips measures 35-50 mm thick and 480-570 mm wide. A roller is next run across the overlapped dough to spread and even the distribution of the dough (42). The dough is then run through three sets of rollers to gently work it into a thin sheet 6.5-8 mm thick (43).

High-melt margarine at a temperature between 65 and 71 degrees F is extruded through a rectangular nozzle into a strip on the middle third section of the dough sheet (44). The quantity of margarine added by weight is equal to 10% of the total weight of the dough. The outer portions of the dough are then folded in overlapping thirds, thus sandwiching the margarine in the middle of the dough and forming a fatted dough.

The fatted dough is then stretched by a first stretcher at 45. In this operation, a series of rollers are rotated in a circular fashion. The dough passes underneath these rollers on three different conveyors at a speed determined by a speed ratio setting. This setting in combination with the

clearance between the rollers and the belt determines the final thickness of the dough after the rolling.

As shown in box 46, the fatted dough is "piled" by a first piler to create a first series of layers. The piler travels back and forth distributing the dough onto a conveyor belt situated at a 90 degree angle from the direction of feed. The conveyor is thus loaded with a sheet of dough having overlapping folds. The number of folds across the width of the dough sheet is multiplied by two to determine the number of layers presently in the dough. The dough is then stretched by a second stretcher at 47 into a fatted sheet, and piled by a second piler at 48 to create a layered sheet having a thickness between 15 and 20 mm. At this point, the dough has its final sixteen-layer structure. The dough is then smoothed by a cross roller at 49. Finally, at 50, a third stretcher rolls the dough to a final thickness of 3-5 mm.

In order to determine the total number of layers the dough will eventually have, the number of layers present after the first piler is multiplied by the number of layers present after the second piler. For example, if 4 layers are run after the first piler and 4 layers are run after the second piler, the dough sheet will have a total of 16 layers.

After the final thickness is achieved, the dough sheet is cut into six strips for rectangular pizza shapes. For other pizza shapes, the dough is left

intact and lightly smoothed by a touch-up roller at 51.

The dough is then "docked" or punctured at 52 to prevent the dough from expanding or "ballooning" in the oven. The puncturing is performed by a roller with a large number of projecting pins to punch a pattern of holes through the dough. At 53, the dough is put into its final form by a cutter, which cuts the dough into pizza shapes. The shapes are spaced evenly on a conveyor to promote even baking.

The cut dough shapes are then baked into crusts in gas impingement ovens set between 475 and 550 degrees F for 1.5-2.3 minutes.

The dough conveying system used in the above-described process is preferably a Model 710 manufactured by Stephan Machinery. The high-speed dough mixer is a Model TK160, also preferably manufactured by Stephan. The sheeting and laminating system preferably comprises components manufactured by Rheon, and include the following components and model numbers: Surface Cleaner Model SV013, Sheet Folder Model FF111, Stress Free Stretcher Model SM231, Flour Duster Model DF103, Dough Feeder Model EX050, Underneath Conveyor Model PC502, CWC Cross Action Roller Model M103, Fat Pump Model XC230, Roll-In Conveyor Model WC303, Sheet Folder Model FF101, Stress-Free Stretcher Model SM501, Pile-Up Table Model PC011, Parallel Piler Model LM608, Pile-Up Table Model PC103, Cross Roller Model CM523, Flour Sweeper Model FV376,

Stress-Free Stretcher Model SM318, Circular Cutter Model OK833, Spacing Conveyor Model 2C672, Press Roller Model MR308, Single Rotary Cutter Frame Model RK013, Synchronized Conveyor Model MC013, and Guillotine Cutter Model GK013. The various ranges settings for these devices are shown in the table below.

PREFERRED RANGES AND SETTINGS FOR EQUIPMENT

	Low	High
Mixer		
Mix Time (seconds)	100	180
Dough Chunker		
Intervals per minute	2	5
Dough Feeder		
Flour Setting # 1 (Beginning of Line)	10	30
Dough Intervals	230	280
Flour Setting # 2 (Before Cross Roller)	10	30
Cross Roller Gage (mm)	15	30
Action Roller		
Flour Setting # 3A (Top of Action Roller)	0.5	1.5
Flour Setting # 3B (Bottom of Action Roller)	10	30
Roller Gage (mm)	4	7
Set Dough Width (mm)	650	725
Output Belt Speed (m/min)	1.00	2.75
Stretch Ratio	2	4
Roll-In		
Belt Speed (m/min)	1.0	2.8
Screw Speed (rpm)	0.2	0.4
Stretcher # 1		
Flour Setting # 4A (Top of Stretcher # 1)	20	35
Flour Setting # 4B (Bottom of Stretcher # 1)	10	30
No. 1 Belt Speed/Incline Angle	1.0/15 deg.	2.75/40 deg.
Speed Ratio	2.5	4.5
Roller Clearance (mm)	0.8	2.0
Number of layers after Piler # 1	4	6
Folding Width (mm)	25/25	40/40
Piler Belt Speed	300	700

	Low	High
Flour Setting # 5 (After Piler # 1)	10	20
Stretcher # 2		
Flour Setting # 6A (Top of Stretcher # 1)	10	40
Flour Setting # 6B (Bottom of Stretcher # 1)	15	35
Gage (mm)	1	3
Speed Ratio	2.0	6.0
Input Thickness (mm)	15	25
Belt # 1 Speed (m/min)	1	3
Number of layers after Piler # 2	4	6
Folding Width (mm)	650	700
Piler Belt Speed	4	12
Flour Setting # 7	1	3
Flour Setting # 8 (After Piler # 2)	0.8	2
Stretcher # 3		
Flour Setting # 9A (Top of Stretcher # 3)	1	2.5
Flour Setting # 9B (Bottom of Stretcher # 3)	10	50
Belt # 1 Speed (m/min)	0.5	2.5
Speed Ratio	2	5
Crank Clearance (mm)	1	5
Guillotine Cutter (for rectangular shapes)		
Cut Length (mm)	150	170
Gas Impingement Oven		
Bake Time (minutes)	1.5	2.3
Oven # 1 Temp (deg. F)	500	550
Oven # 1 Fan (% of maximum)	40	60
Oven # 1 Height (inches)	1.5	3.5
Oven # 2 Temp (deg. F)	475	525
Oven # 2 Fan (% of maximum)	50	80
Oven # 2 Height (inches)	1.5	4.5
Baffles (Top/Bottom)	50/50	80/20

The preferred parameters for various dough dimensions and temperatures are summarized below. These ranges are useful when the process of the present invention is performed on alternative equipment. The present invention is not limited to these parameters,

although those listed have been found to be optimal for the equipment used.

PREFERRED MEASUREMENT PARAMETERS

	Low	High
Room Temperature (deg. F)	60	70
Formula Water Temperature (deg. F)	50	65
Yeast Solution Temperature (deg. F)	50	65
Dough Temperature after mix (deg. F)	80F	89F
Dough Width after feeder (W1 - mm)	480	570
Dough Thickness (T1 - mm)	35	50
Dough Temperature (deg. F)	75F	85F
Dough Width before butter roll-in (W2 - mm)	650	800
Dough Thickness before butter roll-in (T2 - mm)	6.5	8
Roll-In Temperature (deg. F)	65F	71F
Dough Width after butter roll-in (W3 - mm)	280	320
Dough Thickness after butter roll-in (T3 - mm)	20	30
Dough Width after stretcher #1 (W4 - mm)	300	400
Dough Width after 1st Piler (W5 - mm)	300	350
Dough Thickness after 1st Piler (T5 - mm)	12	25
Dough Width after stretcher #2 (W6 - mm)	250	350
Dough Width after 2nd Piler (W7 - mm)	600	700
Dough Thickness after 2nd Piler (T7 - mm)	15	20
Dough Width after stretcher #3 (W8 - mm)	600	700
Final Dough Thickness (T8 - mm)	3	5
Cut Width (W9 - mm)(for rectangular shapes)	110	120
Cut Length (L9 - mm)(for rectangular shapes)	148	160

After the crusts are baked, they are cooled for a period of time before traditional pizza toppings are applied.

The various stretching and rolling procedures result in a unique 16-layer laminated pizza crust with excellent taste and texture. The crusts are crispy and flaky, and are able to withstand topping, freezing, and microwaving without any significant degradation in these qualities.

Of course, it should be understood that a wide range of changes and modifications can be made to the embodiment of the method described above. For example, variations in the ingredients, temperature parameters, layering steps, or other parameters may be applied while remaining within the contemplated scope of the invention. It is therefore intended that the foregoing detailed description be regarded as illustrative rather than limiting and that it be understood that it is the following claims, including all equivalents, which are intended to define the scope of this invention.

WHAT IS CLAIMED IS:

1. A method for making a pizza crust from a dough, said method comprising:

resting said dough;

cutting said dough;

rolling said dough into a sheet;

extruding margarine on to said sheet;

folding said sheet over said margarine to form a fatted dough;

stretching said fatted dough;

piling said fatted dough;

stretching said fatted dough into a sheet;

piling said fatted sheet;

rolling said fatted sheet;

stretching said fatted sheet to a predetermined thickness;

puncturing said fatted sheet;

cutting said fatted sheet into pieces; and

baking said pieces.

2. The method as recited in claim 1 further comprising the step of spacing apart said pieces before baking.

3. The method as recited in claim 1 wherein said resting step further comprises airing said dough at least 45 minutes.

4. The method as recited in claim 1 wherein said predetermined thickness further comprises between 3 and 5 millimeters.

5. The method as recited in claim 1 wherein said margarine further comprises a margarine having a melting temperature of at least 65 degrees F.

6. The method as recited in claim 1 wherein said dough further comprises:

60% flour;

1.25% yeast;

1.25% salt;

1.25% sugar;

1.25% margarine; and

32% water.

7. A method for making a pizza having topping ingredients, said method comprising:

mixing a dough;

resting said dough;

cutting said dough;

rolling said dough into a sheet;

extruding margarine on to said sheet;

folding said sheet over said margarine to form a fatted dough;

stretching said fatted dough;

piling said fatted dough;

stretching said fatted dough into a fatted sheet;

piling said fatted sheet into 16 layers;

rolling said fatted sheet;

stretching said fatted sheet to a predetermined thickness;

puncturing said fatted sheet;

cutting said fatted sheet into dough pieces;

baking said dough pieces;

allowing said dough pieces to cool; and

applying said topping ingredients to said baked dough pieces.

8. An apparatus for making a plurality of pizza crusts, said apparatus comprising:

a mixer for combining ingredients into a dough;

a roller for rolling said dough into a sheet;

a folder for incorporating a layer of margarine into said sheet;

a first stretcher for rolling said sheet;

a first piler for layering said sheet to create a first layered sheet;

a second stretcher for rolling said first layered sheet;

a second piler for layering said first layered sheet to create a second layered sheet;

a third stretcher for rolling said second layered sheet;

cutters for dividing said second layered sheet into pieces;

a docker for puncturing holes in said pieces; and

at least one oven for baking said pieces.

ABSTRACT

A method for making a laminated pizza crust is disclosed herein. The pizza crust is produced by resting a formulated dough mixture, cutting the dough, rolling the dough into a sheet, extruding high-melt margarine on to the sheet and folding it over the margarine to form a fatted dough, stretching the fatted dough, piling the fatted dough onto itself to create several layers, stretching the dough a second time, piling and rolling the dough again, stretching the dough a final time to a predetermined thickness, puncturing the dough sheet, cutting the dough sheet into pre-determined pizza shapes, and finally baking the shapes. The baked crust can be topped with pizza ingredients and frozen. Upon reheating by the consumer in either the microwave or a conventional oven, the crust exhibits an improved texture, flakiness, and flavor.

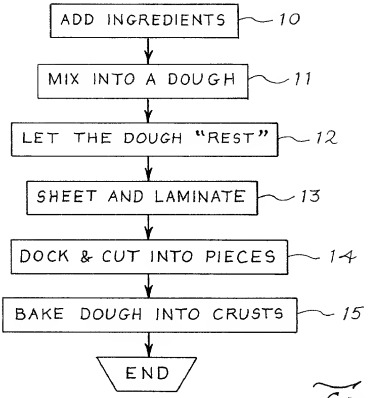
ADD INGREDIENTS
10
MIX INTO A DOUGH
11
LET THE DOUGH "REST"
12
SHEET AND LAMINATE
13
DOCK & CUT INTO PIECES
14
BAKE DOUGH INTO CRUSTS
15
END

Fig. 1

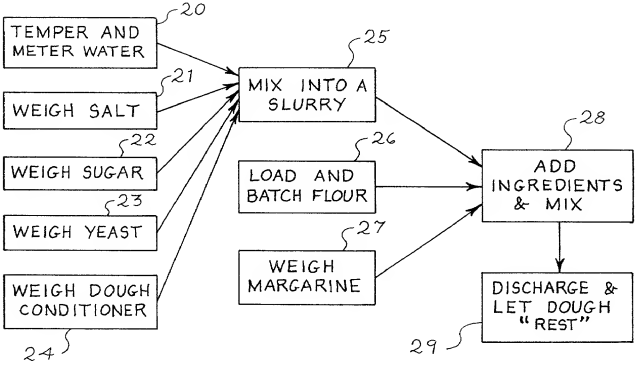
TEMPER AND METER WATER
20
WEIGH SALT
21
WEIGH SUGAR
22
WEIGH YEAST
23
WEIGH DOUGH CONDITIONER
24
MIX INTO A SLURRY
25
LOAD AND BATCH FLOUR
26
WEIGH MARGARINE
27
ADD INGREDIENTS & MIX
28
DISCHARGE & LET DOUGH "REST"
29

Fig. 2

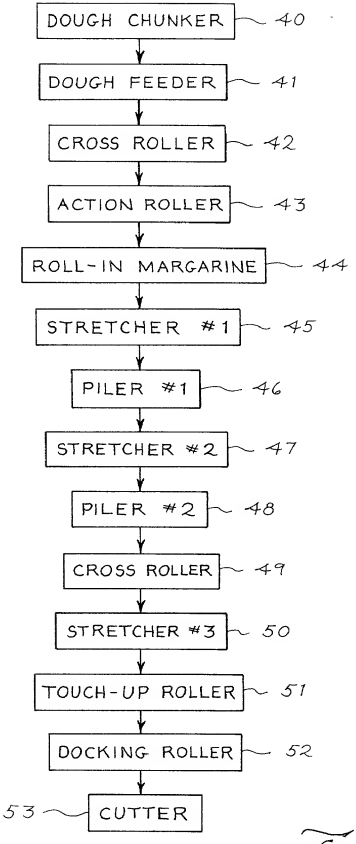
DOUGH CHUNKER
40
DOUGH FEEDER
41
CROSS ROLLER
42
ACTION ROLLER
43
ROLL-IN MARGARINE
44
STRETCHER #1
45
PILER #1
46
STRETCHER #2
47
PILER #2
48
CROSS ROLLER
49
STRETCHER #3
50
TOUCH-UP ROLLER
51
DOCKING ROLLER
52
53
CUTTER

Fig. 3

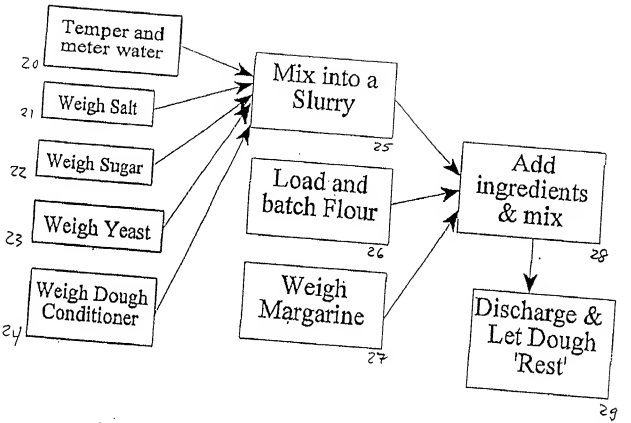

FIGURE 2

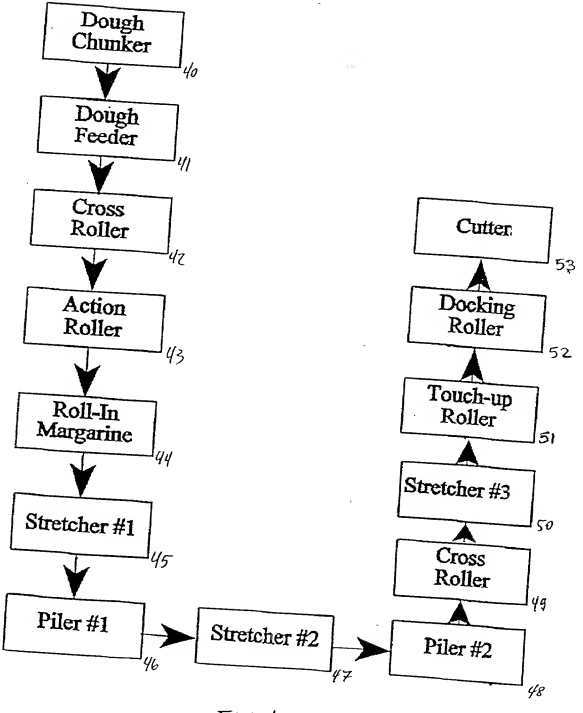
Dough Chunker
40
Dough Feeder
41
Cross Roller
42
Action Roller
43
Roll-In Margarine
44
Stretcher #1
45
Piler #1
46
Stretcher #2
47
Piler #2
48
Cross Roller
49
Stretcher #3
50
Touch-up Roller
51
Docking Roller
52
Cutter
53

FIGURE 3

Case No. 4645/31

DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled Laminated Pizza Crust, the specification of which:

__X__ is attached hereto.

____ was filed on _____ as Application Serial No. _____

____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status-patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's Signature — Date January 27, 1995

Full name of sole or first inventor — Ronald O. Bubar

Residence — 272 Tropic Street, Jackson, OH 45640

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